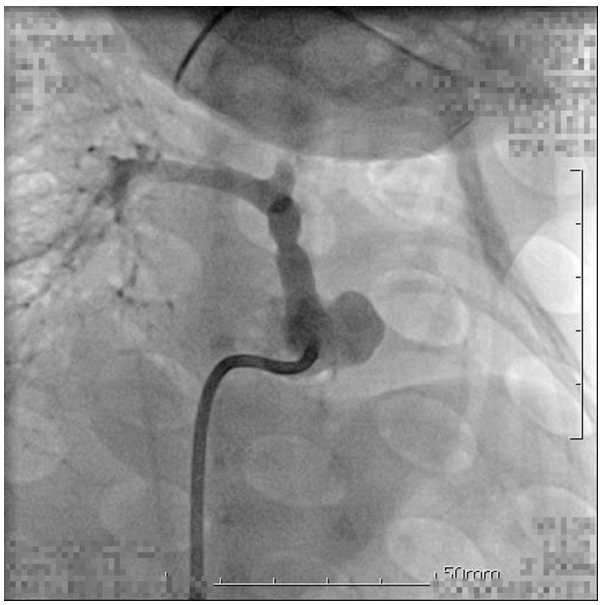


[Interventional Management]
Procedural step:
We passed the occluded segment with Grandslam Ashahi 0.014'' guide wire, and then did staged balloon angioplasty with 1.2mm and 2.5mm coronary balloon.
Finally we put the 4mm*12mm stent at the occluded segment successfully.

TCTAP C-130

Stepwise Therapy for Severe Coarctation, PDA and Large VSD with Severe PAH

Worakan Promphan
Queen Sirikit National Institute of Child Health, Thailand

[Clinical Information]
Patient initials or identifier number:
A 19 years old lady has moderate PDA, large inlet VSD and severe juxta-ductal COAT.
She has been diagnosed as valvular heart disease at provincial hospital when she was 1 year of age. However, she lost to follow up since then and came back to the hospital with history of fatigue and hoarseness.
Relevant clinical history and physical exam:
Physical examination showed SpO2 of 85% in upper extremities. There was a systolic pressure difference of 10 mmHg between right arm and right leg. Her precordial was very active with grade 2/6 systolic murmur at left lower sternal border and grade 2/6 diastolic blowing murmur at left upper sternal border.
Relevant test results prior to catheterization:
The chest X-ray showed CT-ratio of 0.7 with a huge main pulmonary trunk. ECG demonstrated right axis deviation, presence of rsR' in V1, ST depression in right precordial leads. CT-angiogram showed inlet-perimembranous VSD 24 mm with bidirectional flow, PDA 12 mm with bidirectional flow, severe juxta-ductal COAT and very huge MPA compressed left main bronchus. Echocardiographic findings were similar to CTA and also confirmed a systemic pulmonary arterial pressure with severe right ventricular hypertrophy.
[Interventional Management]
Procedural step:
Cardiac catheterization showed PA pressure 124/52 (79) mmHg, AAO pressure 108/66(9) mmHg, DAO pressure 80/64 (72) mmHg, Qp:Qs 1.3, PVR 18 U.m2, Rp:Rs 0.6. Descending aortogram showed angiogram showed severe juxtaductal COAT 6 mm with post-stenotic dilation 23 mm and PDA 10 mm.
Diameter of DAO below 3rd aortic branch 18 mm and DAO diameter at diaphram 15 mm.
Severe PAH in this patient may contributes from 3 major factors: large VSD /PDA, severe left sided obstruction, and high PVR. We decided first to put covered self-expandable stent (Advanta V12 Atrium stent 16x61) and post-dilate with Z-Med balloon 23x30 mm to minimize DAO obstruction and PDA flow. Then, started oral sildenafil (or other pulmonary vasodilators) for at least 6 months and repeat flow/resistance assessment again to assess feasibility of VSD closure.
Case Summary:
VSD, severe coarctation of the aorta and PDA with severe PAH. Successful covered stent placement at COAT. VSD will reassess the feasibility for closure in 6 months after oral sildenafil treatment as a priming pulmonary vasodilator.

TCTAP C-131

PDA Closure in a Special Circumstance

Jin Young Song
Samsung Medical Center, Korea (Republic of)

[Clinical Information]
Patient initials or identifier number:

1. A. Joan
2. K. Mael

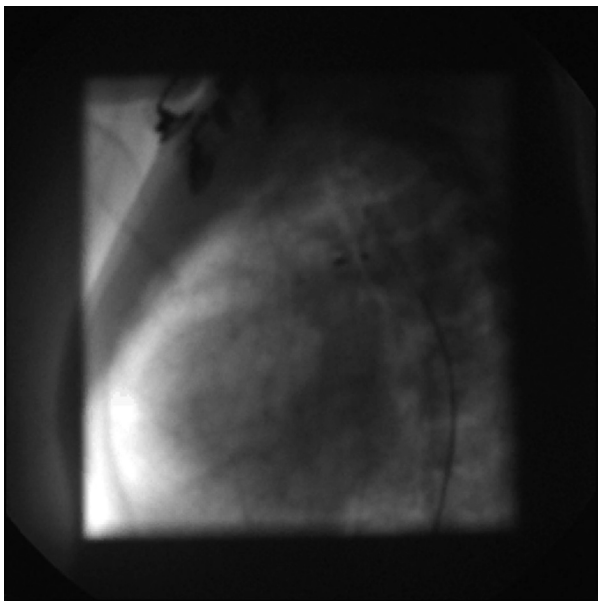
Relevant clinical history and physical exam:

1. PDA with gr 1-2 continous murmur
2. PDA with gr 2 continous murmur

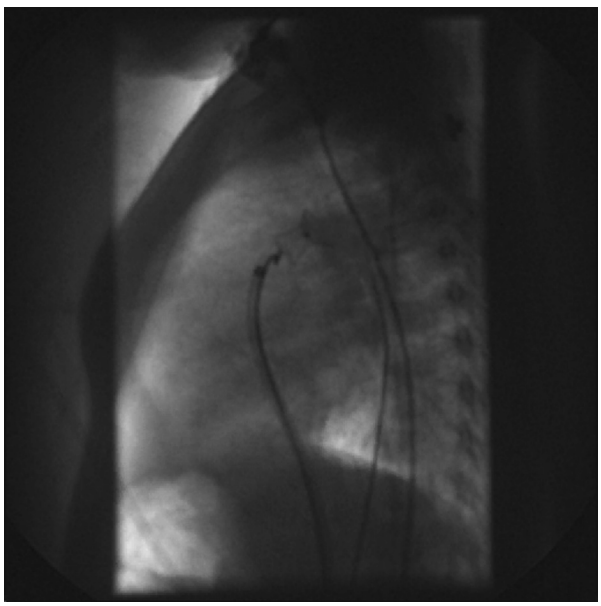
Relevant test results prior to catheterization:

1. PDA very small, no PHT
2. Relatively large PDA with peak PAP = 60mmHg

[Interventional Management]
Procedural step:
Case 1
Due to very limited material, we decided to use ADO 6-4 via delivery sheath 6 fr. But the delivery sheath could not pass through PDA.
We tried to snare the PDA aortic tip and made it pass the PDA, itself.
And successful implantation was done.



Case 2
Due to limited materials, we decided to use ADO 10-8 that were the maximal size of device.
Immediately after implnatation, device embolized to d- Ao was found.
We snared it in d-Ao and re implanted in PDA because the device could not put inside 8fr delivery sheath.
We confirmed the device in PDA safely later on.



TCTAP C-132

Coronary Artery Fistula Coiling; Learning from Mistakes, Adapting and Innovating

Muhammad Yolandi Sumadio, Yudi Her Oktoviono
Dr. Soetomo General Hospital Surabaya, Indonesia

[Clinical Information]
Patient initials or identifier number:
Mrs. S
Relevant clinical history and physical exam:
Typical Chest Pain on Effort
Hypertension
Had previously went a PTCA on Proximal LAD
Had previously underwent surgical coronary artery fistula ligation
Relevant catheterization findings:
Patent Stent on Proximal LAD
Partially ligated coronary artery fistula from LAD to pulmonary artery
Large coronary artery fistula from osteal-proximal RCA to pulmonary artery (failed surgical coronary artery ligation)
[Interventional Management]
Procedural step:

We decided to coil the RCA coronary artery fistula (CAF). We were using transfemoral approach.

1. First attempt we use a guide catheter of JR 4.0 6f, Microcatheter progreat 2.4, guidewire of asahi fielder, micro coil tornado cook 8/4 mm.
2. Our first attempt failed to deploy the coil to the targeted site.
3. After trying for a while, the final coil position was blocking osteal RCA.
4. We decided to snare the coil using Sequre Snare System LTE SM 04
5. The first time snaring went out of trouble
6. We deploy the coil again using the same material but still we can't get the coil to the targeted site, and this time the position even worse than our first attempt.
7. We decided to snare the coil again using the same snare.
8. When we snare for the 2nd time, the coil was stuck at the osteal of the RCA.
9. Eventually we managed to snare the coil out of the RCA but the position of the coil is in front of our guiding catheter.
10. We try to manipulate the coil, snare and guiding catheter, but it is no use
11. The coil was still stuck in front of the guiding catheter and introducer sheath.
12. We then use a Sapphire Balloon 2.0x20 mm, we insert the balloon to the guiding catheter, we inflate the balloon, so it entraped the microcatheter, snare and the coil. And then we pull out all those material simultaneously.
13. We reviewed what our mistakes was
14. Our 2nd attempt was using a guiding catheter of AL-1, microcatheter progreat, guidewire asahi fielder, and microcoil tornado cook 6/4 mm
15. The 2nd attempt of coil deployment went out of trouble. But it was not sufficient to close the CAF.
16. We asked for another coil but the insurance didn't cover for more than 2 coil within a procedure.
17. We then utilize the first coil (which we assume at first to be broken). We trimmed the coil and deploy it to the CAF.
18. Deployment of used coil went perfectly fine, it reduces the CAF flow significantly yet it is not enough.
19. We then used the part of guidewire hi torque floppy as a coil substitute.
20. Deployment went out of trouble and at last the CAF was closed nicely.